

SUNlite

Shedding some light on UFOlogy and UFOs



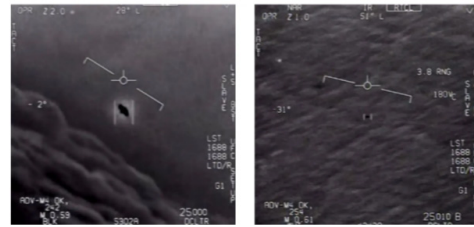
In many cases, observed phenomena are classified as 'unidentified' simply because sensors were not able to collect enough information to make a positive attribution...

Sue Gough - DOD spokesperson

Many Military U.F.O. Reports Are Just Foreign Spying or Airborne Trash

Forget space aliens or hypersonic technology; classified assessments show that many episodes have ordinary explanations.

Give this article



A video image by Navy pilots of "unidentified aerial phenomena." Department of Defense, via Agence France-Presse — Getty Images

Front: My local astronomy group was able to view the September 24 Falcon 9 rocket launch from Hillsborough, NH! I had previously seen one from this location but it was near midnight and the sun did not illuminate it. It was faint and barely noticeable. This was very bright and was obvious to everyone. It generated its share of UFO reports up and down the eastern coast of the United States (NUFORC had about 50 reports).

Left: Uh-Oh....it looks like the DOD is starting to sound like they are "debunking". Who could have predicted this? Hmmm...I recall saying that this is probably where this would lead and UFOlogists will declare this is a cover-up or bad science.

TABLE OF CONTENTS

Weeding out the Weinstein catalogue: November 12, 1973 Tallahassee, Florida...2-3

UFO evidence under review: December 10, 1952 Hanford, Washington.....4-5

The 701 club: Case 7134 November 29, 1960 South of Kyushu, Japan.....6-7

Project Blue Book case review: May-August 1966.....8-24

Was UFO evidence at Mar-a-Lago?

UFOlogy has been promising that, at some point, there will be a great revelation by the US government that UFOs are actually alien spaceships. The news that Donald Trump had a cache of classified documents he took with him when he left the White House had me speculating about what he felt was so valuable to him. Nobody really knows why Trump took these documents but he usually takes such action if it has some intrinsic value to him. If he were aware of an alien spaceship crash or that UFOs were alien spaceships, such a document would have been in that collection. Mr. Trump wants to be identified as the first and best of everything. He could be the first President to reveal that aliens are visiting the earth in spaceships! Of course, one can also argue that Trump does not care about such things and is more interested in gathering dirt on earthly opponents. Still, if there ever was a president who would reveal a "cosmic Watergate", it probably would have been Trump based on his belief in making headlines. The lack of any such revelation makes one believe that there are no secret UFO documents of significance.

As noted by the cover image, the recent launch of a batch of Starlink satellites on September 24, produced quite a display on the east coast. It was visible as far north as Maine. I had expected to see the launch from New Hampshire because I had previously seen a Starlink satellite launch with a similar launch trajectory in late August around 11 PM. What we saw on that event was a faint 4th magnitude cloud. On the 24th, the New Hampshire astronomy club had a gathering at our dark sky site. As we set up for the evening, I alerted my fellow astronomers we might be in for a treat based on what I saw a month before. This was a launch after sunset and the twilight effect was going to apply for the second stage burn. I was expecting being able to see it and predicted it would be second or third magnitude. Imagine my surprise when the second stage rose above the trees as a brilliant object (about magnitude -2) that was easily visible to even casual observers. [This resulted in dozens of UFO reports in the NUFORC database.](#) A similar effect was seen in the southwestern US when a Falcon 9 lifted off from Vandenberg after sunset on October 27th. On that date, reports of seeing the launch were made from Arizona, Nevada, Utah, and California.



There was some late breaking news regarding NASA's UFO investigation program (Blue Book 3.0). They gave a list of sixteen experts being used to evaluate the sightings/data. The budget for the project is supposedly no more than \$100,000. I assume that this does not include the payment of these experts. If one were divide \$100,000 equally between 16 individuals, each person will get about \$6,000. For 9 months work (the estimated time duration of this study), that is less than minimum wage. Based on the budget mentioned, this probably will be more of a tabletop exercise reviewing the data without spending a lot of time performing on-site investigations. If that is the plan, then it will be just an expanded version of the Robertson Panel (maybe I should start calling it Robertson panel 2.0). Speaking of the data, what is going to be their source of reports/information? Would it be the MUFON database or some government source of information? Wherever they obtain their raw data from, I expect this panel to produce the same conclusions that previous scientific panels had produced. Without hard evidence, they will be unable to draw any firm conclusions other than people mistake objects in the sky as something extraordinary and that a certain percentage will remain "unidentified". Those remaining "unidentifieds" will remain a mystery but they prove nothing.

Finally, there were some media headlines that began to state that a lot of the military UFO reports can be traced to drones and "junk" in the skies. "Junk" means balloons and other man-made objects. UFOlogists are going to have a fit! Blue Book 2.0 is going to end up like Blue Book 1.0.

WEEDING OUT THE WEINSTEIN CATALOGUE

November 12, 1973 Tallahassee, Florida

73.11.12	20:00	USA	Tallahassee, Florida 30°26 N / 84°17 W	A	a Southern Airlines DC-9 pilot + crew	one spherical object, bright red to white, low on the horizon, then climbed away.				A74.1
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The source of the information for this case is the 1974 January-February APRO bulletin.

Source information

The APRO bulletin has a lengthy article about the sighting and it sourced the airline's magazine "Southernaire". For some reason, APRO did not perform any follow-up and discover the time line for the incident or talk to the pilot. Weinstein lists the time as 2000. The article outlines the events as follows²:

- On November 12, 1973, Tallahassee FAA personnel told a Southern Airways DC-9 crew that they were observing a UFO from the tower.
- Charter flight 730 was deplaning passengers and unloading cargo when an FAA employee informed Captain R.C. Cook that the tower had seen a UFO pass overhead at 2000 mph and at an altitude of 3000 feet.
- The plane was then to be ferried to Atlanta. As the plane taxied out to runway 30, Captain Cook inquired about the UFO and the tower reported the UFO was still visible to the Southwest from the tower and low over the trees.
- After takeoff, Captain Cook received permission to fly on a vector of 240 degrees.
- He sighted a round glowing object low on the horizon that climbed away from them. Cook estimated its distance at 15 miles.
- The flight flew to an altitude of 20,000 feet and maintained its bearing of 240 degrees. As they gained altitude, the object also gained in altitude and maintained its distance of 15 miles.
- Jacksonville flight center informed Cook to inquire with Tyndall AFB to see if they were monitoring the object.
- Tyndall stated they had visual contact but would not confirm or deny if they had any radar contact.
- The flight then contacted Panama City tower, 10 miles to their Southwest, and asked if they had the UFO in sight. They confirmed that they had it and two other objects in sight. The flight only saw the single target and it was implied the UFO was moving out over the gulf.
- The pilot could not close on the UFO. They turned north to complete their ferry mission to Atlanta.
- At this point the UFO changed its flight path and followed the aircraft as it flew north. It then descended and, eventually, disappeared.

Analysis

The lack of a time line is frustrating and makes this very difficult to analyze. Even worse is that flight 730 was a ferry flight, which means it did not appear as a regularly scheduled flight in any timetables. All we have is the time of 2000 listed by Weinstein in the table.

There are actually two sightings in this case. The initial report to the pilot was of a high speed object that had passed low over the airfield. This probably was a meteor.

The second object reported by Captain Cook was described as *"a spherical glowing light which was pulsating from very bright to quite dim but always visible"*.³ It was in a fixed location in the sky moving directly away from the aircraft as it began its pursuit.

One can assume that the "pursuit" of the UFO started sometime around 2000. The aircraft was a DC-9, which flies about 500-550 mph. The distance from Tallahassee to Panama City was 80-90 miles. This is a time of about 10 minutes before the aircraft turned north. From Panama City to Atlanta was about 250 miles. That takes about 30 minutes. Therefore, with some assumptions we can create a time line:

Time	Location of aircraft
2000	Leaving Tallahassee airport
2010 - 2015	Aircraft approaches Panama City
2015 - 2045	Aircraft en route to Atlanta. Object disappears during this time period.

It just so happens that the bright planet Venus was visible in the southwest on that evening. It was approaching greatest brilliancy and was at magnitude -4.5. Its position in the sky in azimuth/elevation are as follows:

Time	Azimuth	Elevation
1800 EST	214	24
1900 EST	225	16
2000 EST	234	6
2030 EST	238	1

Since Captain Cook never mentions that Venus was visible near the UFO, it seems very likely he was pursuing Venus. It was in the direction he described flying and Venus set around 2030. This matches the description by Cook that the object disappeared while he was flying north to Atlanta.

Conclusion

There seems to be a sufficient information available to determine that this case was the planet Venus and it should be removed from the list.

Notes and references

1. Weinstein, Dominique F. Unidentified Aerial Phenomena: Eighty years of pilot sightings. NARCAP. February 2001. P. 45
2. "Flight crew sighting in Florida". APRO bulletin. January-February 1974. P. 10.

December 10, 1952 Hanford WA

The Chronology's description of this sighting reads:

December 10, 1952--Nr. Hanford, Washington, Radar-visual sighting of round, white UFO with "windows." [VIII]¹

Section VIII gives the following description:

F-94 obtained radar lock-on; UFO seen as round, white, with "windows."²

The reference is Ruppelt's, The Report on Unidentified Flying Objects.

Ruppelt's account

Edward Ruppelt's book only briefly mentions the incident:

On the night of December 10, 1952, near another atomic installation, the Hanford plant in Washington, the pilot and radar observer of a patrolling F-94 spotted a light while flying at 26,000 feet. The crew called their ground control station and were told that no planes were known to be in the area. They closed on the object and saw a large, round, white "thing" with a dim reddish light coming from two "windows." They lost visual contact but got a radar lock-on. They reported that when they attempted to close on it again it would reverse direction and dive away. Several times the plane altered course itself because collision seemed imminent.³

Since Ruppelt used the Blue Book files for his source, the case was probably located there.

Blue Book file

Project Blue Book but the actual location of the incident was Odessa, Washington.⁴ It occurred at 0315Z on 11 December (1915 PST on the 10th). I guess distance is a relative thing because Odessa is over fifty miles away from the Hanford nuclear research facility!

The case file really does not have a lot of information. It has a teletype and a summary page. There are also excerpts from Ruppelt's and Menzel's books. No further investigation of the incident is recorded. The summary of the report suggested that what was seen was a research balloon.

Analysis

It seems that NICAP only read part of the story told by Ruppelt. Just one page after describing the event, Ruppelt made the following comment:

In the case involving the ground observer and the F-47 near the atomic installation, we plotted the winds and calculated that a lighted balloon was right at the spot where the pilot encountered the light.

In the other instance, the "white object with two windows," we found that a skyhook balloon had been plotted at the exact sight of the "battle".⁵

The December 10 event was the second incident described.

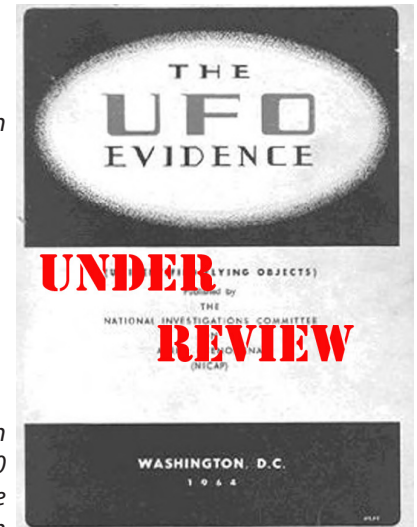
A check of stratocat does not provide us with any known research balloons in the area and the Blue Book file makes no mention of a plotted balloon. However, Stratocat is an incomplete document and does not include a lot of flights. This was especially true with service/test flights, where no research was being performed.

One of the launch sites for Skyhook balloons in the early 1950s was Tillamook, Oregon. It was at a bearing of 243 degrees and 280 miles away from Odessa. Wind data for this time period is very limited. What balloon data that is available is far from Odessa.⁶

Location	Date/Time (Zulu)	Altitude (ft)	Wind direction from	Speed
Medford, Oregon	12/11 0300	21,000 - 27,000	270- 293	39-52 knots
Cape Flattery, WA	12/11 0300	18,000 - 29,500	270	50-81 knots
Spokane, WA	12/11 0300	16,000 - 20,500	293	60-65 knots

Winds below these levels were from the west and southwest. For the most part, the winds are consistent between these stations. This implies that the winds near Odessa were probably the same. It seems plausible that a balloon launched from Tillamook could have reached the area.

According to Stratocat, Tillamook did not begin Skyhook operations until January 1953.⁷ However, news media reports indicate



that Tillamook was launching balloons in 1952. In mid-August 1952, the Navy had announced they were going to be launching balloons from Tillamook.⁸ Two weeks later, the news media announced a balloon from Tillamook had been recovered in Moscow, Idaho.⁹ Another balloon had been recovered in the spring of 1952.¹⁰ In October of 1955, the Office of Naval Research published an article describing balloon launches from Tillamook in the fall of 1952.¹¹ This demonstrates that Tillamook was in operation prior to December of 1952 and they were gearing up to perform more aggressive flights in 1953.

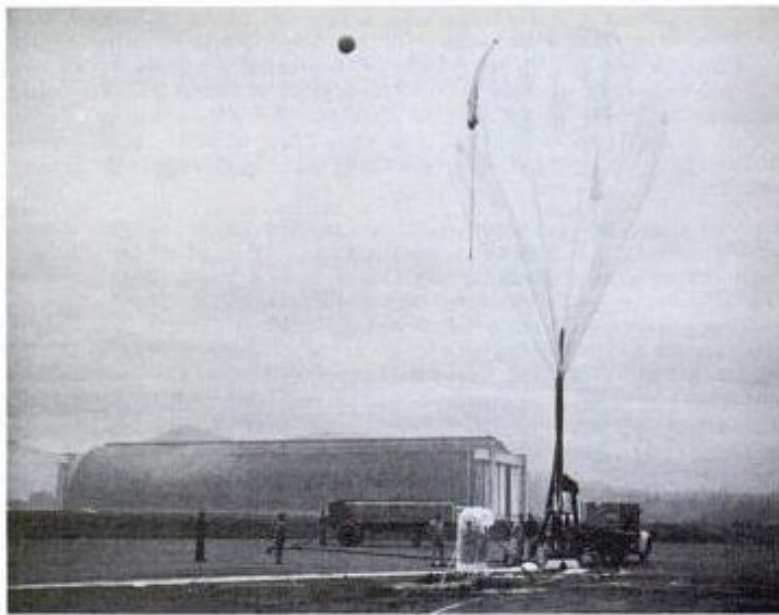


Figure 1 - Balloon-flights from Tillamook, Oregon in the autumn of 1952

Conclusion

I can see no reason to reject the possibility this was a balloon from Tillamook, Oregon. The winds support a potential trajectory that might have brought a balloon towards Odessa and Tillamook was actively launching balloons in 1952. Because of the lack of records, we don't have a known balloon launch. Ruppelt felt there was one recorded but his information is an anecdote and the Blue Book file contains no mention of positively identifying this as a balloon. Therefore, we can only classify this as a "possible research balloon". Still, there is enough evidence that indicates the case should be removed from the "UFO evidence" category.

Notes and references

1. Hall, Richard M. (Ed.) The UFO evidence. The National Committee on Aerial Phenomena (NICAP). New York: Barnes and Noble. 1997. P. 133
2. *ibid.* P. 78.
3. Ruppelt, Edward. The Report on Unidentified Flying Objects. New York: Doubleday 1956. P. 43
4. "Case file - December 10, 1952 - Odessa, Washington". Fold 3 web site. Available WWW: <https://www.fold3.com/image/9170320>
5. Ruppelt, Edward. The Report on Unidentified Flying Objects. New York: Doubleday 1956. P. 44
6. National Oceanic and Atmospheric Administration (NOAA). NOAA/ESRL Radiosonde Database. Available WWW: <https://ruc.noaa.gov/raobs/>
7. "Stratospheric balloons: Chronological lists of launches worldwide since 1947" StratoCat. Available WWW: <http://stratocat.com.ar/globos/indexe.html>
8. "Navy planning continental balloon tests." Eureka-Humboldt times. Eureka, California. August 17, 1952. P. 25
9. "Balloon drops cargo, flies off once more". Eureka-Humboldt times. Eureka, California. August 31, 1952. P. 10
10. "Idaho Falls takes Air Force balloon for flying saucer." The Idaho Free Press. Nampa, Idaho. April 5, 1952. P. 1
11. "Balloons and weather forecasting: The Transosonde system." Research Reviews. Office of Naval Research. Washington DC. October 1955. P. 2

THE 701 CLUB: CASE 7134 NOVEMBER 29, 1960 SOUTH OF KYUSHU, JAPAN

Don Berliner's list describes the case as follows:

Nov. 29, 1960; south of Kyushu, Japan. 6:38 p.m. Witnesses: USAF Lt. Col. R.L. Blwlin (sp?) and Maj. F.B. Brown, flying a T-33 jet trainer. One white light glowed and paralleled the course of the T-33 for 10 minutes.¹

Brad Sparks has no additional information.²

The Blue Book file

The file contains the standard teletype report and a memo stating that space track checked and could not identify any spacecraft that could produce the report. Details regarding the sighting were mentioned in the teletype:

- The shape was just a point of light similar to the north star. Its brightness was between 2nd and 4th magnitude
- The light had a track that paralleled the aircraft. It went from azimuth 350 degrees to 30 degrees. It had an elevation of 45 degrees. At 30 degrees azimuth it disappeared suddenly.
- The duration of the sighting was 10 minutes
- The aircraft was at 21,000 feet with a heading of 15 degrees and True Air Speed (TAS) of 320 knots.
- The time of the sighting was 0938 - 0948Z (1838-1848 local time).
- No other aircraft were reported in the area.
- A similar report was submitted on 25 October 1960.

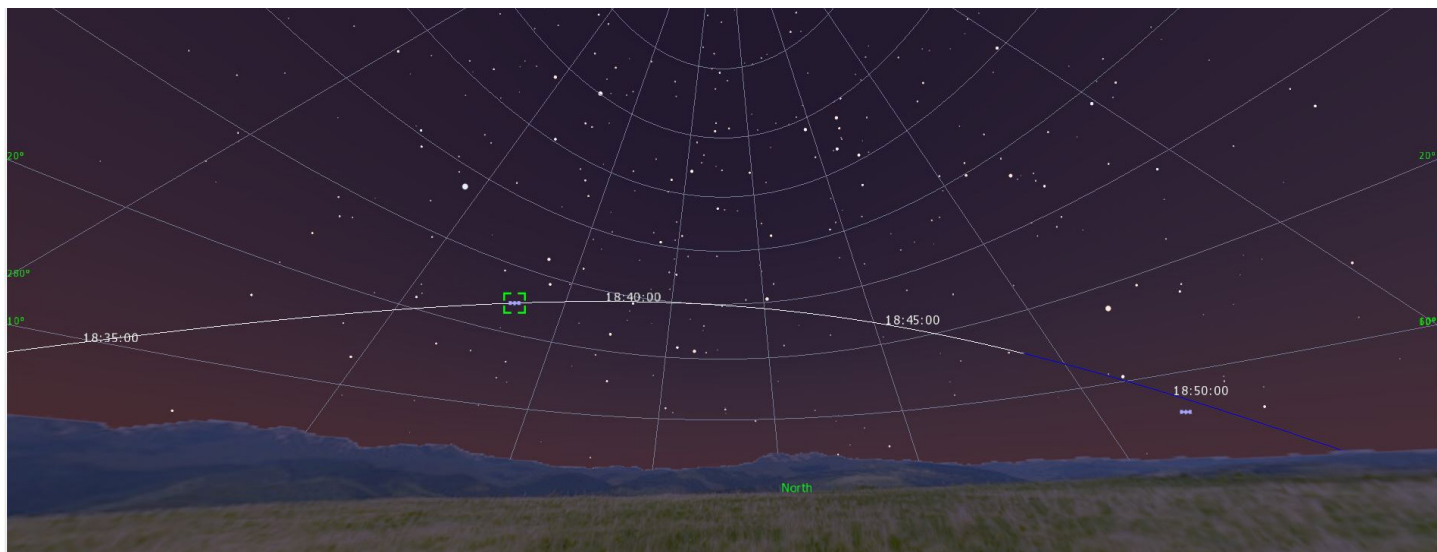
Analysis

With such a report, I begin to think it was one of two possible sources. The first was it was an aircraft. The lack of any aircraft in the region and the sudden disappearance tends to rule that explanation out. The 25 October sighting mentioned in the report was probably a reference to the sighting from Okinawa on that date. It had been classified as an aircraft.

The second source was a satellite. However, Space track said there was no satellite in the region. To verify, I ran my Heavensat program with my late 1960 Two-Line Elements. I was shocked to see that the Echo satellite was making a pass in the region at the time of the sighting. I then ran the computations with a TLE dated for 29 November and got this result:



When I entered the approximate location described (the position was in relation to nearby islands) and put it into the sky mode, the track was pretty close to what was described. At 1838 local (0938Z), the azimuth was about 300 degrees and elevation was 20 degrees. At 1848 (0948Z), the azimuth was about 35 degrees and elevation was approximately 15 degrees. The peak elevation was 30 degrees. While the elevation was not exactly 45 degrees and the initial azimuth was more to the west, one has to remember the location given was not precise and I estimated the aircraft's location. Additionally, the crew of the aircraft were making estimated locations in the sky and were not making precise measurements. It is most interesting that at the time of 1848, the satellite went into shadow resulting in it "disappearing suddenly" just as described by the crew.



Conclusion

It appears that space track did not have the correct information available. They may have had the wrong time, location, or date. They also may not have had the correct TLEs for the Echo Satellite. In any case, the Echo satellite is the source for this sighting and it should be removed from the list of Blue Book unknowns.

Notes and references

1. Berliner, Don. "The Bluebook Unknowns". NICAP Available WWW: <http://www.nicap.org/bluebook/unknowns.htm>
2. Sparks, Brad. Comprehensive Catalog of 1,700 Project Blue Book UFO Unknowns: Database Catalog Not a Best Evidence List –NEW: List of Projects & Blue Book Chiefs Work in Progress Version 1.30. Jan. 26, 2020. P. 285
3. "Case file - November 29, 1960 - South of Kyushu Island, Japan". Fold 3 web site. Available WWW: <https://www.fold3.com/image/8601538>

Project Blue Book case review: May-August 1966

This is the latest edition of the Project Blue Book case review covering May through August of 1966. Like the previous evaluations, I tried to examine each case to see if the conclusion had merit. I added comments to help clarify the explanation or if I felt it was not correct or adequate.

May 1966

Date	Location	BB explanation	My evaluation
May	New Bedford, MA	Insufficient data	Agreed. No date/time/positional data.
May	Alaska	Insufficient data	Agreed. No date/time/positional data.
May	Fort Pierce, FL	Insufficient data	No case file
May	Huntington, WV	Insufficient data	Agreed. No date and positional data is insufficient.
May	Columbiana, OH	Insufficient data	Agreed. No date and positional data is insufficient.
1	Holly, MI	V: Insufficient data Photo: Lost before analysis	V: Agreed. Witness does not provide positional data. Did not fill out observation form. Photo: Difficult to determine if it was ever submitted. There is a letter in the file that asks Hynek to return the photograph to BB. It seems the witness gave the photo to Hynek, who lost it or never returned it.
1	Lakewood, CA	Aircraft	Agreed. Based on date and time given it could have been an aircraft. The possibility exists that the date and time (witness gave two different times) were wrong because on May 2, an ICBM was launched from Vandenberg that matches the description given. 14-year old witness submitted report in July.
2	Pittsburgh, PA	Insufficient data	Possible aircraft
3	New York, NY	Insufficient data	Possibly Cosmos 58
3	Dayton, OH	Venus	No case file
3	Milledgeville, GA	Insufficient data	Possible Balloon
4	Indianapolis, IN	Insufficient data	Agreed. No time, duration, or positional data.
4	Columbus, OH	Satellite	No case file
4	Charleston, WV	Aircraft	Possible Echo Satellite
4	Oxford, OH	Balloon	No case file
4	Long Island, NY	Satellite	No case file
4	Columbus, OH	Insufficient data	Agreed. No form returned. Information on record card just reports a stationary object.
4	Indianapolis, IN	Insufficient data	13-year old. Possible meteor
4	Columbus, OH	Insufficient data	Agreed. No positional data
4	Fair Oaks, CA	Aircraft	Agreed
5	Columbus, OH	Aircraft	No case file
5	South Jamesport, NY	Insufficient data	Possible aircraft
5	Columbus, OH	Insufficient data	Agreed. No positional data
5	Winter Park, FL	Aircraft	No case file
5	Columbus, OH	Aircraft	Agreed
5	Colorado Springs, CO	Insufficient data	Possible star (insufficient data to determine which)
6	Jackson, OH	Balloon	Echo 2 and Echo 2 RB
6	South Acton, MA	Insufficient data	No case file
6	Columbus, OH	Aircraft	Agreed
6	Westhampton Beach, NY	Aircraft	No case file
7	Orlando, FL	Aircraft	Possibly Vega seen through clouds

7	Columbus, OH	Altair	Agreed
7	Ridge, NY	Insufficient data	Possibly Vega
7	Goodfellow AFB, TX	UNIDENTIFIED	UNIDENTIFIED
7	Columbus, OH	Moon	Agreed
8	New Carlisle, OH	Moon	Agreed
8	Macon, GA	Aircraft	Agreed
9	Norwood, OH	Aircraft	Agreed
9	Orlando, FL	Insufficient data	Possibly Antares and adjacent stars. Star disappeared behind clouds in area.
9	Spring Branch, TX	Aircraft	Agreed
9	Pacific	Satellite	Meteor
10	Potsdam, NY	Insufficient data	Probably Venus
10	Dobbston, OH	Insufficient data	Possible balloon
10	Camden, OH	Arcturus	Agreed
11	Leetonia, OH	Insufficient data	Possibly Arcturus
11	Dayton, OH	Meteor	Agreed
12	Lynchburg, VA	Conflicting data	Possible bird. Witness was driving car and saw gray object for 5-10 seconds going in opposite direction he was driving. Report filed 5 months later.
13	Maiden, NC	Insufficient data	Possible meteor. 15-year old filed report seven months later.
14	Colorado Springs, CO	Ground Light	Agreed
14	Winter Park, FL	Aircraft	Agreed
14	Casselberry, FL	Insufficient data	Jupiter
15	Dayton, OH	Aircraft	Echo 2
15	NE Houston, TX	Aircraft	Agreed. Contrail seen at sunset.
15	Panama City, FL	Satellite	16-year old. Agreed. Echo 1
17	New Orleans, LA	Aircraft	Agreed
18	Chicago, IL	Aircraft	Agreed
18	Indianapolis, IN	Insufficient data	14-year old. Possibly Jupiter.
20	Richmond, IN	Insufficient data	Possibly Procyon and Capella
20	Columbus, OH	Aircraft	Agreed
20	Condon AFS, OR	Ground Light	Agreed
21	Milton, WI	Aircraft	Stars. Witness did not give enough description of the various objects locations. Arcturus was probably the star seen near the Big Dipper's handle ("arc to Arcturus").
22	Sedro Wooley, WA	Insufficient data	Echo 1
22	Yellow Springs, OH	Aircraft	Agreed
22	Orlando, FL	Birds	Agreed
23	Dayton, OH	Satellite	Agreed. Pegasus 2 and Apollo module 2
23	Gainesville, FL	Aircraft	Agreed
23	Dayton, OH	Satellite	Agreed. Echo 1
23	Dayton, OH	Satellite (Echo 1)	Agreed. Echo 1
24	Houston, TX	Reflection	Venus
25	Mobile, AL	Moon	Agreed. Probably a lunar halo.
25	Camden, OH	Fomalhaut	Probably Venus
25	Laredo, TX	Venus	Agreed
25	Dayton, OH	Aircraft	12.5-year old. Agreed

25-6	Wichita, KS	Aircraft	Agreed
26	Wappingers Falls, NY	1. Aircraft 2. Photo -Reflection	1. Agreed 2. Agreed
26	Chicago, IL	Conflicting data	Possibly Arcturus
26	Chicago, IL	Insufficient data	Possibly Cosmos 103 RB
27	Vermillion, SD	Aircraft	Agreed
27	Roslyn Heights, NY	Insufficient data	14-year old. Possible daylight sighting of moon.
27	Huber Heights, OH	Insufficient data	Possibly Echo 1 (Witness estimated time was 45 minutes but pass was 25 minutes long. No age given but witness appears to be young).
27	Kettering, OH	Satellite	Agreed. Possibly Cosmos 116 or Echo 2. Cosmos 116 fit flight path described but Echo 2 was also in region of sky.
27	Linton, OH	Aircraft	Satellite. Echo 2
28	Columbus, OH	Aircraft	Three objects seen. 1. Meteor 2. Satellite. Cosmos 44 RB 3. Aircraft
28	Jefferson, OH	Satellite	Agreed. Echo 2
28	Cheyenne, WY	Insufficient data	Satellite. Echo 1
28	Fort Carson, CO	Aircraft	Agreed
29	Columbus, OH	Aircraft	Agreed
29	Dayton, OH	Satellite	Agreed. Echo 1
29	Atlanta, GA	Altair	Vega
29	Columbus, OH	Meteor	Agreed
29	Columbus, OH	Meteor	Agreed
29	Colorado Springs, CO	Search Light	Vega and Antares
29	Dayton, OH	Satellite	Agreed. Echo 2
29-30	Columbus, Hilliard, OH	Meteor	Agreed
30	Columbus, OH	Insufficient data	Possible Balloon
30	Vineland, NJ	Meteor	Agreed
30	Harveysburg, OH	1. Satellite 2. Aircraft	1. Agreed. Echo 1 2. Agreed
30	Westerville, OH	Satellite	Agreed. Echo 1
30	Columbus, OH	Aircraft	Agreed. Echo 1
31	Central Valley, CA	Balloon	Agreed

June 1966

Date	Location	BB explanation	My evaluation
June	Denver, CO	Insufficient data	Agreed. No date or time. Letter written in December 1966.
June	Columbus, OH	Insufficient data	Agreed. No date
June	Easton, PA	Insufficient data	Agreed. No specific date other than "the end of June". Positional data also missing.
June	Hartford, WI	Insufficient data	Agreed. 14-year old. No specific date.
1	Dayton, OH	Aircraft	Agreed
1	Dayton, OH	Satellite	Agreed. Echo 2

2	Colorado Springs, CO	Aircraft	11-year old. Satellite. Echo 1
3	Claremont, CA	Insufficient data	Possible bird illuminated by city lighting. Brief sighting.
3	Houston, TX	Aircraft	Satellite. Echo 2
3	Lycoming, NY	Venus	Agreed
3	Huntington, NY	Insufficient data	Possible Echo 1 sighting
3	Northport, NY	Balloon	Satellite. Echo 2
3	Colorado Springs, CO	Satellite	Agreed. Echo 2
4	Colorado Springs, CO	Conflicting data	11-year old reporting he saw UFO after watching "The Outer Limits". Probably satellites Echo 1 and Pegasus 1.
4	Colorado Springs, CO	Insufficient data	Possible ground lighting. Witness observed cigar shaped object below horizon, which was stationary and still present when witness left. Witness was located in the hills to the west of town and looking down towards city.
4	Dayton, OH	Satellite	Agreed. 11-year old. Echo 1.
4-5	Baker, OR	Capella	Agreed
5	Condon, OR	Meteor	Agreed
5	Dexter, OH	Aircraft	Agreed
6	Gahanna, OH	Altair	Satellite. Echo 1.
6	Tyler, TX	Aircraft	Satellites. Apollo module and Pegasus 1
6	Polar, WI	Satellite	Agreed. Satellites Echo 2, Apollo module and Pegasus 1
6	Spooner, WI	UNIDENTIFIED	UNIDENTIFIED
8	Roann, IN	Aircraft	Agreed
8	Amarillo, TX	Satellite	14-year old. Agreed. Echo 1 and Echo 2
8	Kansas, OH	UNIDENTIFIED	UNIDENTIFIED
8	Fayetteville, NC	Reflection of ground lights	Possible aircraft. Witness reported lights following same track. Each light was approximately 45 seconds apart. Aircraft involved in exercise could produce effect.
8	Duluth, MN	Satellite	Possible balloon. Detailed path sketched by witness rules out satellites. Sketch does indicate object could have driven by wind.
10	Cleveland, OH	Reflection	Possible aircraft
10	King of Prussia, PA	Satellite	Agreed. Possibly Cosmos 70
10	Medway, OH	Aircraft	Agreed
10-12	Marietta, OH	Aircraft	Agreed
11	Kalat, Afghanistan	Venus	Agreed
11	Vineland, NJ	Satellite	Agreed. 16-year old. Echo 2
11	Lynchburg, VA	Satellite	Agreed. Echo 2
11	Mesquite, TX	Insufficient data	Satellite. Pegasus 1
11	Dayton, OH	Satellite	Agreed. 16-year old. Echo 1
12	Peterson, VA	Satellite	Agreed. Possibly Cosmos 54.
12	York, PA	Arcturus	Agreed
12	Columbus, OH	Aircraft	Agreed
12	Columbus, OH	Aircraft	Agreed
12	Columbus, OH	Satellite	Agreed. Echo 1
12	Columbus, OH	Satellite	Agreed. Echo 2 (Note: 15-year old saw this as a flying disk like in the day the earth stood still)
12	Beavercreek, OH	Altair	Antares
13	Morrisonville, NY	Venus	Venus had not risen yet. Possibly the moon or Saturn.

14	Burnside, KY	Aircraft	Agreed
14	Climbing Hall, IA	Aircraft	Satellites Echo 2 and Cosmos 70
14	Dayton, OH	Aircraft	Agreed
15	Blue Point, Long Island, NY	Insufficient data	Agreed. No positional data other than object was stationary and then, after three hours, traveled eastward.
15	New York, NY	Insufficient data	Aircraft and contrails
15	Manhattan, NY	Satellite	Agreed. Echo 1
15	Clovis, NM	Satellite	Agreed. Echo 1 and Pegasus 1
15	Goodfellow AFB, TX	1. Satellite 2. Aircraft	1. Agreed. Echo 2 2. Agreed.
16	Dayton, OH	Insufficient data	Agreed. No report form filled out. Witness only made report to duty officer they saw a UFO. No details recorded.
16	Bergenfield, NJ	Insufficient data	16-year old. Aircraft reflecting sun
16	Houston, TX	1. Satellite 2. Aircraft	1. Agreed. Echo 1 and 2 2. Agreed.
17	North Vernon, Columbus, Indiana	Aircraft	Agreed
17	Chicago, IL	Aircraft	Agreed. Possibly advertising aircraft.
18	Burnsville, NC	UNIDENTIFIED	UNIDENTIFIED
18	Chicago, IL	Insufficient data	Possibly advertising aircraft.
18	Blacklick, OH	Insufficient data	Probable star (no direction to determine which star - Probably Vega or Arcturus)
18	Columbus, OH	Satellite	Agreed. Possibly Echo 2 RB.
18	Columbus, OH	Insufficient data	Possibly Cosmos 44 RB
19	Kettering, OH	Satellite	Agreed. Echo 2
19	Middletown, OH	Aircraft	Agreed
19	Friendwood, TX	Insufficient data	Aircraft
19	Oklahoma area	Satellite	Agreed. Echo 1
19	Northlake, IL	Insufficient data	Possible advertising aircraft
20	Centerville, OH	Castor	10-year old. Setting crescent moon
20	Dayton, OH	Moon	Agreed
20	Jacksonville, PA	Insufficient data	Agreed. Form not returned. No information other than witness reported seeing UFO.
21	Salt Saint Marie, MI	Insufficient data	Agreed. No duration listed. Possibly Centaur RB
21	Fort Knox, KY	Insufficient data	Agreed. Form not returned. No information other than witness reported seeing UFO.
21	Kettering, OH	Aircraft	Satellite. Witness mentioned object passing near moon. Echo 1 made pass near moon around time indicated.
22	East Hampton, NY	Aircraft	Agreed.
22	E. of Nashville, TN	1. Regulus 2. Reflection of moon	1. Agreed 2. Echo 2. Witness gave time as an estimate. Echo 2 made pass in location described (near moon going SW) 20 minutes after reported time.
23	Tallahassee, FL	Satellite	Possible aircraft
23	Columbus, MS	Radar: False Targets Visual: Insufficient data	1. Agreed. 2. Agreed. No direction of observation. Venus was visible and could have been source of visual sighting.

23	Hamburg, NY	Aircraft	Agreed. Photo shows area of sighting.
24	Farmville, VA	Insufficient data	Duplicate entry. This case was originally listed as June 24 on record card but later changed to July 24.
24	Columbus, OH	Balloon	Agreed
24	Castle Rock, CO	Aircraft	Agreed. Witnesses observed multiple objects in different locations of the sky for short durations. Observations made shortly after sunset making it possible these were aircraft reflecting the sun.
24	Houston, TX	Aircraft	Satellite. Echo 1.
25	Aztec, NM	Meteor	Agreed.
25	Houston, TX	Insufficient data	Agreed. No course/positional data given.
26	Akron, OH	Blimp	Agreed
26	Chicago, IL	Aircraft w/ advertising sign	Agreed
26	Dayton, OH	Aircraft	Agreed
27	Pacific	UNIDENTIFIED	Atlas ICBM launch. See SUNlite 4-6.
27	Boothville, LA	Aircraft	Agreed
29	Waikiki Beach, HI	Unreliable report	Atlas SLV-3 debris re-entry (Molczan). Photo is photocopy of sketch made.
29	Hawaiian Islands	Missile activity	Atlas SLV-3 debris re-entry (Molczan)
29	Ligao, Philippines		Photo shows lights with hand held camera and slow shutter speed.
30	Dubois, PA	Insufficient data	Agreed. No duration or direction of travel mentioned in letter.
30	LaPlatte, NE	Insufficient data	NO CASE FILE
30	Powell, ID	Meteor	Agreed

July 1966

Date	Location	BB explanation	My evaluation
July	Dayton, OH	Insufficient data	Agreed. 13-year old. No time or date.
July	Plymouth, OH	Insufficient data	Agreed. 15-year old. No date other than early July. Description may have been of Echo 2 pass on July 1, 2 or 4. Report filed in February 1967 (witness listed year as 1966).
July	Concord, CA	Insufficient data	Agreed. 15-year old. No date. Report filed in January 1967.
3	Bloomington, IN	Plasma	Agreed. Light around radio tower and going to ground. Hynek interviewed witness.
3	West Jefferson, OH	Balloon	Agreed.
3	Dixon, IL	Insufficient data	Meteor
4	West Galveston Bay, TX	Insufficient data	Bright Meteor with long duration ion trail. Witness reported bright flare seen through some thin clouds and then noticed comet like cloud in location that lasted for about 15 minutes before fading.
4	Houston, TX	Aircraft	Agreed
4	New Haven, CT	Balloon	Agreed. 15-year old.
4	Detroit, MI	Aircraft	Agreed
5	Covington, KY	Balloon	Agreed. 17-year old making a 15-second sighting of a gray object around sunset.
5	Houston, TX	Aircraft	Agreed
5	Lakewood, CA	Aircraft	Agreed

6	Fairpoint, SD	Conflicting data	Stars/planets. Observation of object in East was Venus. Other observations were of stars in the west. Insufficient information to determine which stars. 200
6	Dayton, OH	Aircraft	Agreed. 13-year old.
6	Oxford, OH	Insufficient data	Possibly satellites Cosmos 54 and 106.
6	Fairpoint, SD	1. Aircraft 2. Reflection	1. Aircraft 2. Aircraft
6	IL, OH	Meteor	Agreed
6	Columbus, OH	Meteor	Agreed. Same as IL/OH sighting on same date.
7	Girard, OH	Psychological	Agreed
7	Dayton, OH	Aircraft	Agreed
7	Cedar Rapids, IA	Meteor	Agreed
7	Centerville, OH	Aircraft	Possible group parachute jump or birds
7	Conroe, TX	Conflicting data	Unreliable report. Letter/report made in January 1967.
7	Amarillo, TX	Aircraft	Possible meteor
8	Ilion, NY	Aircraft	Agreed. Refueling operation.
8	Mediterranean Sea	Regulus	Possible launch of Skylark missile from Salto di Quirra, Sardinia. Witness reported longitude as 18 deg west but that is outside of Mediterranean Sea and in Atlantic. Position was probably East longitude (Between Italy and Libya).
8	Ladd, IL	Meteor	Agreed
8	Clovis, NM	Aircraft	Agreed
9	Hamilton, OH	Insufficient data	Possibly Venus seen through clouds
9	Houston, TX	Vega	Agreed
10	Western Pacific	Satellite decay	Meteor. Not on Molczan's list
10	Ryukyuan Islands	Satellite decay	Meteor. Not on Molczan's list
10	Columbus, OH	Aircraft	Agreed
10	Macedonia, OH	Satellite	Agreed. Apollo module 2. 13-year old.
10	Exit 7 OH turnpike	Aircraft	Agreed
11	Lower Souris Wildlife Refuge, ND	Aircraft	Agreed
11	Columbus, OH	Aircraft	Agreed
12	Philadelphia, PA	UNIDENTIFIED	UNIDENTIFIED
12	Albuquerque, NM	1. Aircraft 2. Meteor	1. Agreed 2. Agreed. Meteor confirmed by second observation from area around same time.
12	Albuquerque, NM	Meteor	Agreed
12	Kirtland AFB, NM	Satellite	Agreed. Cosmos 44 RB.
13	Houston, TX	Satellite	Agreed. Pegasus 3.
13	Houston, TX	Aircraft	Agreed
13	Ralston, NE	Insufficient data	Possibly Proton 3
13-14	Omaha, NE	Meteor	Agreed
14	St. Clair, PA	Aircraft	Agreed
14	North Hudson, NY	Aircraft	Agreed. Refueling operation.
15	Kalispell AFS, MT	Search lights	Agreed
16	Houston, TX	Meteor	Agreed
16	St. Paul, MN	Insufficient data	Possible meteors

17	Ernest Harmon AFB, Canada	Balloon	Agreed
17	New York, NY	Insufficient data	Agreed. No duration.
17	Enon, OH	Insufficient data	Cosmos 44
17	Belleville, IL	Spica & Denebola	Arcturus and Antares
17-19	New Castle, ME	Stars/Planets	NO CASE FILE
18	Lebanon, OR	Capella	Agreed
18	Dayton, OH	Insufficient data	Agreed. No positional data. The only description is a beacon of light that was visible for 30 seconds.
18	Aberdeen, SD	Aircraft	Agreed
18-19	Dayton, OH	Aircraft	Agreed. Advertising aircraft, which generated many reports.
19	Dayton, OH	Insufficient data	Possible aircraft. Forms for sighting are confusing since there are two for this date. Both give similar information and probably were aircraft.
19	Houston, TX	Insufficient data	1. Possible meteor 2. Agreed. Witness reports 3 UFOs moving N-S for over an hour. One was still in sight. Information is insufficient to determine exact time of each UFOs passage.
19	Del Paso Heights, CA	Stars/Planets	Agreed. Capella and Saturn
19	Houston, TX	Stars/Planets	Agreed. Venus
20	Houston, TX	Stars/Planets	Agreed. Venus
20	Nondalton, Iliama, AK	1. Balloon 2. Photo: No image	1. Agreed. 2. Agreed. Images don't show anything but scratches and specs.
21	Middleboro, MA	Meteor	Agreed
21	Washington DC	Satellite	Agreed. Echo 1
21	Port Harrison, Canada	Balloon	Agreed
21	Enon, OH	Insufficient data	Satellite. Cosmos 125
21	Jonston City, IL	Satellite	Agreed. 16-year old. Probably Proton 3.
21	Uniontown, PA	Meteor	Agreed
21	Takoma Park, MD	Aircraft	Agreed
22	Kokomo, IN	Reflection	Agreed. Reflection of searchlights on clouds investigated by Hynek.
24	Medway, OH	Aircraft	Agreed
24	Pacific	Aircraft	Echo 1 Satellite
24	Farmville, Va	Insufficient data	Agreed. One witness reported noise like helicopter but did not see anything. Another witness reported seeing object performing maneuvers/hovering but gave no positional data. Time listed as 1720Z but witness sketch gave time as 0120AM and not PM.
24	Feasterville, PA	Insufficient data	Agreed. Object seen three nights in a row. Only one sighting available and it is missing positional data/course. Several satellites visible around time of sighting (Pegasus 1, Cosmos 116, Cosmos 58 and 103 RB).
25	Vansboro, NC	UNIDENTIFIED	UNIDENTIFIED
25	Casper, WY	Insufficient data	Possible balloon
25	Eugene, OR	Aircraft	Agreed

25-31	Atlanta, GA	Insufficient data	Multiple observations of objects in sky. Principle sightings were of Echo 1 (July 25) Pageos 1 (July 26). Venus was the major object visible on all three nights. Minor sightings of Aldebaran, Saturn, and possible high altitude aircraft rounded out the list of objects observed. Some reports were unclear as to what they were describing but the bulk of the reports were just lights in the sky.
26	Dayton, OH	Insufficient data	Possible sighting of Apollo module 1
27	Memphis, TN	Aircraft	Agreed. Advertising aircraft.
29	Houston, TX	Aircraft	Possible meteors. Witness reported two objects over two nights that were short duration moving rapidly.
29	Cincinnati, OH	Aircraft	Agreed. Advertising aircraft.
29	Condon, OR	Antares	Possible balloon from Chico, CA.
29	New York City, NY	Flare	Possible meteor
30	Watauga, SD	Stars/Planets	NO CASE FILE
30	Condon AFS, OR	Conflicting data	Echo 2 satellite
30	Chaltenham, PA	Aircraft	Agreed
30	Coldwater, OH	Moon	Agreed
31	Sergeant Bluff, IA	Balloon	Agreed
31	Alexandria, VA	Satellite	Agreed. Echo 1
31	Hedgeville, WV	Capella	Agreed
31	Presque Isle State Park, PA	1. Lights unidentified 2. Indentations not related to visual sighting 3. Monster probably an animal.	Photographs are of depressions in sand/dirt. 1. Possible meteor 2. Agreed 3. Agreed. In my opinion, this may have been a case of overactive imaginations by teenagers. It may even be a hoax. The testimony of the witnesses were not that convincing.

August 1966

Date	Location	BB explanation	My evaluation
Aug	Fostoria, OH	Visual: Insufficient data Photo: No record of receipt	Agreed. 15-year old writing letter in July 1967 stating he sent negative. Blue Book had no record of such a negative being submitted. Witness claimed photograph was sent to NICAP and Condon project. Neither organizations appear to have used the images. They do not appear in the Condon report or Richard Hall's "Best Evidence volume 2".
Aug	Cincinnati, OH	Insufficient data	Agreed. No date/time/positional data/duration.
1	Manilla, Philippines	Visual: Insufficient data Photo: Emulsion defect	V: Agreed. No clear positional data P: Agreed.
1	Annadale, VA	Aircraft	Agreed
1	Eastern Maryland area	Insufficient data	Agreed. Witnesses reported multiple objects over a three hour period. This resulting in incomplete reports of each sighting. These were probably stars, satellites, meteors and aircraft. Without detailed and clear reports, one cannot determine the source of each sighting.
1	Jefferson, OH	Aircraft	Agreed

1	Washington DC	1. Meteor 2. Cloud	1. Agreed 2. Agreed
2	Oak Lawn, IL	Insufficient data	16-year old. Possible meteor
2	Springfield, VA	Insufficient data	12-year old. Possible aircraft
2	San Luis Obispo, CA	Aircraft	Agreed
3	Englewood, OH	Venus	Agreed
3	Dayton, OH	Balloon	Agreed
3	Indianapolis, IN	Insufficient data	Agreed. No positional data to determine source.
3	Wilmette, IL	Capella, Jupiter, Venus, Mars	Agreed
3	Dayton, OH	Aircraft	Agreed
3	Dayton, OH	Insufficient data	Agreed. Witness made initial report but never returned form.
3	Philadelphia, PA	Satellite	Agreed. Witness gave a range of 0200-0300Z. Echo 1 made pass during this time period, which matches track described. Cosmos 70 also made a pass that matched the track.
3	Dayton, OH	Insufficient data	Possible satellite Cosmos 103 RB.
3-4	Dayton, OH	Insufficient data	Possible aircraft. Witness reported seeing objects in flight pattern with other aircraft.
4	Broomall, PA	Aircraft	Agreed
4	Holly, MI	Aircraft	Agreed
4	Kettering, OH	Insufficient data	Agreed. No positional data available. The only information available was that it was visible for 40 minutes.
5	Kettering, OH	Aircraft	Agreed
5	Kettering, OH	Insufficient data	Agreed. No course given. No positional data.
5	Springdale, OH	Aircraft	13-year and 14-year olds. Agreed. Advertising aircraft.
5	Warrenton, MO	Satellite	Agreed. Echo 1.
6	Harlinger, TX	Insufficient data	Agreed. Witnesses of "alien" inside the window of the craft were 6-9 year-old children. Additional observations in early September.
6	Girard, OH	Meteor	Agreed
6	Cincinnati, OH	Satellite	Agreed. Cosmos 103 RB.
7	Long Island Beach, NY	Venus, Jupiter	Agreed
7	Fairborn, OH	Sunset	Agreed
7	Colorado Springs, CO	Satellite	Agreed. 15-year old. Direction missing but Echo 1 was making a pass at the time of the sighting and description matches a satellite.
8	Landsdale, PA	Conflicting data	Capella. Data listed as conflicting because of sky conditions and times. Form was mixed in with other forms making it difficult to read. Witness typed in a lot of the responses making it possible to read report.
8	Utica, NY	Aircraft	Agreed
8	Pacific	Meteor	Agreed
8	North Atlantic	Meteor	Agreed
8	Canton, KS	Satellite	Agreed. Cosmos 70 or Cosmos 103 RB. Witness saw two events. One was a moving light and one was stationary. This was possibly the star Altair.
8	Dayton, OH	Stars/Planets	Agreed. Capella.
9	New Carlisle, OH	Satellite	Agreed. Echo 1
9	Rossburg, OH	Stars/Planets	Agreed. Capella. 17-year old.

9&30	Big Fork and Yellowstone national park, MT	Insufficient data	1. 9 Aug - Satellite. Echo 2 2. 30 Aug - Satellite. Echo 1
11	Springfield, OH	Aircraft	Agreed
11	Harvard, MA	Cloud	Agreed
12	San Angelo, TX	Satellite	Agreed. Echo 1
12	Chelsea, MI	Satellite	Agreed. Echo 1
12	Silver Springs, MD	Satellite	Agreed. Echo 1
12	Minot, ND	Meteor	Agreed
14	Parkston, SD	Insufficient data	Possibly Capella
14	Pensacola, FL	Insufficient data	Possible flock of birds. 14-year old.
15	Fort Smith, AR	1. Aircraft 2. Stars/planets	1. Agreed. Refueling operation 2. Agreed. No positional data to determine which stars/planets.
15	Sioux Falls, SD	Aircraft	Agreed
15	Grants Pass, OR	Satellite	Agreed. Echo 1. Telex listed time as 0545Z but witness entered 0510Z on report form (filled out 10 days later).
16	Fondulac, MN	Insufficient data	Possible observation of barium release from Fort Churchill, MB.
16	Lawrenceburg, IN	Meteor	Agreed
16	Mansfield, OH	Insufficient data	Agreed. No duration.
16	MN, ND, WI	Artificial clouds	Agreed. Upper atmosphere Barium release from Fort Churchill, MB.
16	Cambridge, OH	Aircraft	Agreed
16	Marville, France	False targets	Agreed. Object not seen even though aircraft passed over it.
17	Syosset, NY	Satellite	Agreed. Echo 1.
17	Bardstown, KY	Aircraft	Agreed. Refueling operation
17	Kennett, MO	Aircraft	Agreed
17	Medway, OH	Satellite	Agreed. Echo 1.
17	Bethpage, NY	Satellite	Agreed. Echo 1.
17	Dayton, OH	Aircraft	Agreed
17	National City, CA	Meteor	Agreed
18	Bay Shore, NY	Satellite	Agreed. Echo 1.
18	Perry, GA	Insufficient data	Satellite. Cosmos 70.
18	Tijeras Canyon, NM	Aircraft	Agreed
18	Duluth, MN	Aircraft	First object was possibly aircraft. Second object was probably Echo 1.
18	Xenia, Dayton, OH	Meteor	Agreed
18	Duluth, MN	Arcturus	Agreed
19	Donnybrook, ND	UNIDENTIFIED	UNIDENTIFIED (Photographs are of ground traces/landing site)
19	Lockwood, OH	Aircraft	Agreed
19	Gore, OH	Chaff	Agreed
20	Easthampton, NY	1. Aircraft 2. Capella	1. Agreed 2. Capella not risen yet. Possibly Saturn. Note: 87-year old witness reporting his fifth UFO since March.
21	Dayton, OH	Antares	Agreed
21	Dayton, OH	Satellite	Agreed. Echo 1.

21	Dayton, OH	Insufficient data	Agreed. No positional data/course
21	Miamisburg, OH	Satellite	Agreed. Echo 1.
21	Dayton, OH	Satellite	Agreed. Echo 1
22	Sacramento, CA	Ground Lights	Agreed
22	Cheviot, OH	Satellite	Agreed. Echo 1.
22-28	Louisville, KY	Stars/Planets	Agreed. Multiple sightings on multiple nights with no positional data to determine which stars/planets. Descriptions consistent with astronomical objects/scintillating stars.
23	Duluth, MN	Insufficient data	Agreed. No specific course/positional data listed.
23	Da Nang, Viet Nam	Insufficient data	Possible aircraft. Pilot reporting a light than came near his aircraft, paralleled aircraft, and then departed to north. This was over a combat zone where aircraft were possibly in the area.
23	Dayton, OH	Balloon	Agreed. 13-year old
23	Columbus, OH	UNIDENTIFIED	UNIDENTIFIED
23	Eaton, OH	Flare	Agreed. Description indicates it probably was a flare or fire-works.
23	Arlington Heights, IL	Satellite	Agreed. Echo 1.
23-4	Dayton, OH	Insufficient data	Agreed. No course given.
24	Dayton, OH	Aircraft	Agreed
24	Carpio, Grano, ND	Aircraft	Stars/planets. Two objects observed. One to the north and described as being at high elevation and another seen towards ESE. Vega and Saturn were in these locations. Description of object to north indicates scintillating star. Object to ESE was just described as a stationary light (planets are less likely to scintillate). Radar returns appear to be AP. Fighter interceptor scrambled and directed towards targets but they saw nothing.
24	Troy, OH	Moon	Agreed
25	West Hampton Beach, NY	Insufficient data	Moon setting
25	Oakland, CA	Possible Balloon	Agreed
25	Philadelphia, PA	Aircraft	Agreed
26	Duluth, MN	Satellite	Agreed. Echo 2
26	Gaylesville, AL	UNIDENTIFIED	UNIDENTIFIED
26	Pecos, TX	Aircraft	Agreed (NOTE: The record card says August 26 but all documentation in file indicates it was June 26).
27	Leonia, NJ	Aircraft	Agreed
27	Kettering, OH	Aircraft	No Case File
28	Oregon, WI	Moon	Agreed
28	Dayton, OH	Satellite	Agreed. Echo 1.
28	Dayton, OH	Aircraft	Agreed
28	San Luis Obispo, CA	Balloon	Agreed
29	Dayton, OH	Satellite	Agreed. Echo 1
30	Alley Springs, MO	Balloon	Agreed
31	Kettering, OH	Aircraft	Possible meteor.
31	Kettering, OH	Meteor	Agreed. 17-year old.

Reclassification

I evaluated 388 cases in the Blue Book files from May through August 1966. In my opinion, 110 were improperly classified (about 28%). 56 (about 14% of the total number of cases/51% of the reclassifications) of these were listed as "insufficient data". This table describes these cases and how I felt they should have been classified.

Date	Location	Reclassification	Reason
5/2	Pittsburgh, PA	Insufficient data	Possible aircraft
5/3	New York, NY	Insufficient data	Possibly Cosmos 58
5/3	Milledgeville, GA	Insufficient data	Possible Balloon
5/4	Indianapolis, IN	Insufficient data	Agreed. No time, duration, or positional data.
5/4	Charleston, WV	Aircraft	Possible Echo Satellite
5/4	Indianapolis, IN	Insufficient data	13-year old. Possible meteor
5/5	South Jamesport, NY	Insufficient data	Possible aircraft
5/5	Colorado Springs, CO	Insufficient data	Possible star (insufficient data to determine which)
5/6	Jackson, OH	Balloon	Echo 2 and Echo 2 RB
5/7	Orlando, FL	Aircraft	Possibly Vega seen through clouds
5/7	Ridge, NY	Insufficient data	Possibly Vega
5/9	Orlando, FL	Insufficient data	Possibly Antares and adjacent stars. Star disappeared behind clouds in area.
5/9	Pacific	Satellite	Meteor
5/10	Potsdam, NY	Insufficient data	Probably Venus
5/10	Dobbston, OH	Insufficient data	Possible balloon
5/11	Leetonia, OH	Insufficient data	Possibly Arcturus
5/12	Lynchburg, VA	Conflicting data	Possible bird. Witness was driving car and saw gray object for 5-10 seconds going in opposite direction he was driving. Report filed 5 months later.
5/13	Maiden, NC	Insufficient data	Possible meteor. 15-year old filed report seven months later.
5/14	Casselberry, FL	Insufficient data	Jupiter
5/15	Dayton, OH	Aircraft	Echo 2
5/18	Indianapolis, IN	Insufficient data	14-year old. Possibly Jupiter.
5/20	Richmond, IN	Insufficient data	Possibly Procyon and Capella
5/21	Milton, WI	Aircraft	Stars. Witness did not give enough description of the various objects locations. Arcturus was probably the star seen near the Big Dipper's handle ("arc to Arcturus").
5/22	Sedro Wooley, WA	Insufficient data	Echo 1
5/24	Houston, TX	Reflection	Venus
5/25	Camden, OH	Fomalhaut	Probably Venus
5/26	Chicago, IL	Conflicting data	Possibly Arcturus
5/26	Chicago, IL	Insufficient data	Possibly Cosmos 103 RB
5/27	Roslyn Heights, NY	Insufficient data	14-year old. Possible daylight sighting of moon.
5/27	Huber Heights, OH	Insufficient data	Possibly Echo 1 (Witness estimated time was 45 minutes but pass was 25 minutes long. No age given but witness appears to be young).
5/27	Linton, OH	Aircraft	Satellite. Echo 2
5/28	Columbus, OH	Aircraft	Three objects seen. 1. Meteor 2. Satellite. Cosmos 44 RB 3. Aircraft
5/28	Cheyenne, WY	Insufficient data	Satellite. Echo 1
5/29	Atlanta, GA	Altair	Vega
5/29	Colorado Springs, CO	Search Light	Vega and Antares
5/30	Columbus, OH	Insufficient data	Possible Balloon

6/2	Colorado Springs, CO	Aircraft	11-year old. Satellite. Echo 1
3	Claremont, CA	Insufficient data	Possible bird illuminated by city lighting. Brief sighting.
3	Houston, TX	Aircraft	Satellite. Echo 2
3	Huntington, NY	Insufficient data	Possible Echo 1 sighting
3	Northport, NY	Balloon	Satellite. Echo 2
4	Colorado Springs, CO	Conflicting data	11-year old reporting he saw UFO after watching "The Outer Limits". Probably satellites Echo 1 and Pegasus 1.
4	Colorado Springs, CO	Insufficient data	Possible ground lighting. Witness observed cigar shaped object below horizon, which was stationary and still present when witness left. Witness was located in the hills to the west of town and looking down towards city.
6	Gahanna, OH	Altair	Satellite. Echo 1.
6	Tyler, TX	Aircraft	Satellites. Apollo module and Pegasus 1
8	Fayetteville, NC	Reflection of ground lights	Possible aircraft. Witness reported lights following same track. Each light was approximately 45 seconds apart. Aircraft involved in exercise could produce effect.
8	Duluth, MN	Satellite	Possible balloon. Detailed path sketched by witness rules out satellites. Sketch does indicate object could have driven by wind.
10	Cleveland, OH	Reflection	Possible aircraft
11	Mesquite, TX	Insufficient data	Satellite. Pegasus 1
12	Beavercreek, OH	Altair	Antares
13	Morrisonville, NY	Venus	Venus had not risen yet. Possibly the moon or Saturn.
14	Climbing Hall, IA	Aircraft	Satellites Echo 2 and Cosmos 70
15	New York, NY	Insufficient data	Aircraft and contrails
16	Bergenfield, NJ	Insufficient data	16-year old. Aircraft reflecting sun
18	Chicago, IL	Insufficient data	Possibly advertising aircraft.
18	Blacklick, OH	Insufficient data	Probable star (no direction to determine which star - Probably Vega or Arcturus)
18	Columbus, OH	Insufficient data	Possibly Cosmos 44 RB
19	Friendwood, TX	Insufficient data	Aircraft
19	Northlake, IL	Insufficient data	Possible advertising aircraft
20	Centerville, OH	Castor	10-year old. Setting crescent moon
21	Kettering, OH	Aircraft	Satellite. Witness mentioned object passing near moon. Echo 1 made pass near moon around time indicated.
22	E. of Nashville, TN	1. Regulus 2. Reflection of moon	1. Agreed 2. Echo 2. Witness gave time as an estimate. Echo 2 made pass in location described (near moon going SW) 20 minutes after reported time.
23	Tallahassee, FL	Satellite	Possible aircraft
24	Houston, TX	Aircraft	Satellite. Echo 1.
27	Pacific	UNIDENTIFIED	Atlas ICBM launch. See SUNlite 4-6.
29	Waikiki Beach, HI	Unreliable report	Atlas SLV-3 debris re-entry (Molczan). Photo is photocopy of sketch made.
29	Hawaiian Islands	Missile activity	Atlas SLV-3 debris re-entry (Molczan)
29	Ligao, Philippines		Photo shows lights with hand held camera and slow shutter speed.
7/3	Dixon, IL	Insufficient data	Meteor

4	West Galveston Bay, TX	Insufficient data	Bright Meteor with long duration ion trail. Witness reported bright flare seen through some thin clouds and then noticed comet like cloud in location that lasted for about 15 minutes before fading.
6	Fairpoint, SD	Conflicting data	Stars/planets. Observation of object in East was Venus. Other observations were of stars in the west. Insufficient information to determine which stars. 200
6	Oxford, OH	Insufficient data	Possibly satellites Cosmos 54 and 106.
6	Fairpoint, SD	1. Aircraft 2. Reflection	1. Aircraft 2. Aircraft
7	Centerville, OH	Aircraft	Possible group parachute jump or birds
7	Conroe, TX	Conflicting data	Unreliable report. Letter/report made in January 1967.
7	Amarillo, TX	Aircraft	Possible meteor
8	Mediterranean Sea	Regulus	Possible launch of Skylark missile from Salto di Quirra, Sardinia. Witness reported longitude as 18 deg west but that is outside of Mediterranean Sea and in Atlantic. Position was probably East longitude (Between Italy and Libya).
9	Hamilton, OH	Insufficient data	Possibly Venus seen through clouds
10	Western Pacific	Satellite decay	Meteor. Not on Molczan's list
10	Ryukyu Islands	Satellite decay	Meteor. Not on Molczan's list
13	Ralston, NE	Insufficient data	Possibly Proton 3
16	St. Paul, MN	Insufficient data	Possible meteors
17	Enon, OH	Insufficient data	Cosmos 44
17	Belleville, IL	Spica & Denebola	Arcturus and Antares
19	Dayton, OH	Insufficient data	Possible aircraft. Forms for sighting are confusing since there are two for this date. Both give similar information and probably were aircraft.
19	Houston, TX	Insufficient data	1. Possible meteor 2. Agreed. Witness reports 3 UFOs moving N-S for over an hour. One was still in sight. Information is insufficient to determine exact time of each UFOs passage.
21	Enon, OH	Insufficient data	Satellite. Cosmos 125
24	Pacific	Aircraft	Echo 1 Satellite
25	Casper, WY	Insufficient data	Possible balloon
25-31	Atlanta, GA	Insufficient data	Multiple observations of objects in sky. Principle sightings were of Echo 1 (July 25) Pageos 1 (July 26). Venus was the major object visible on all three nights. Minor sightings of Aldebaran, Saturn, and possible high altitude aircraft rounded out the list of objects observed. Some reports were unclear as to what they were describing but the bulk of the reports were just lights in the sky.
26	Dayton, OH	Insufficient data	Possible sighting of Apollo module 1
29	Houston, TX	Aircraft	Possible meteors. Witness reported two objects over two nights that were short duration moving rapidly.
29	Condon, OR	Antares	Possible balloon from Chico, CA.
29	New York City, NY	Flare	Possible meteor
30	Condon AFS, OR	Conflicting data	Echo 2 satellite

31	Presque Isle State Park, PA	1. Lights unidentified 2. Indentations not related to visual sighting 3. Monster probably an animal.	Photographs are of depressions in sand/dirt. 1. Possible meteor 2. Agreed 3. Agreed. In my opinion, this may have been a case of overactive imaginations by teenagers. It may even be a hoax. The testimony of the witnesses were not that convincing.
8/2	Oak Lawn, IL	Insufficient data	16-year old. Possible meteor
2	Springfield, VA	Insufficient data	12-year old. Possible aircraft
3	Dayton, OH	Insufficient data	Possible satellite Cosmos 103 RB.
3-4	Dayton, OH	Insufficient data	Possible aircraft. Witness reported seeing objects in flight pattern with other aircraft.
8	Landsdale, PA	Conflicting data	Capella. Data listed as conflicting because of sky conditions and times. Form was mixed in with other forms making it difficult to read. Witness typed in a lot of the responses making it possible to read report.
9&30	Big Fork and Yellowstone national park, MT	Insufficient data	1. 9 Aug - Satellite. Echo 2 2. 30 Aug - Satellite. Echo 1
14	Parkston, SD	Insufficient data	Possibly Capella
14	Pensacola, FL	Insufficient data	Possible flock of birds. 14-year old.
16	Fondulac, MN	Insufficient data	Possible observation of barium release from Fort Churchill, MB.
18	Perry, GA	Insufficient data	Satellite. Cosmos 70.
18	Duluth, MN	Aircraft	First object was possibly aircraft. Second object was probably Echo 1.
20	Easthampton, NY	1. Aircraft 2. Capella	1. Agreed 2. Capella not risen yet. Possibly Saturn. Note: 87-year old witness reporting his fifth UFO since March.
23	Da Nang, Viet Nam	Insufficient data	Possible aircraft. Pilot reporting a light than came near his aircraft, paralleled aircraft, and then departed to north. This was over a combat zone where aircraft were possibly in the area.
24	Carpio, Grano, ND	Aircraft	Stars/planets. Two objects observed. One to the north and described as being at high elevation and another seen towards ESE. Vega and Saturn were in these locations. Description of object to north indicates scintillating star. Object to ESE was just described as a stationary light (planets are less likely to scintillate). Radar returns appear to be AP. Fighter interceptor scrambled and directed towards targets but they saw nothing.
25	West Hampton Beach, NY	Insufficient data	Moon setting
31	Kettering, OH	Aircraft	Possible meteor.

Summary

The cases during this time period had a significant number of cases that were difficult to evaluate. The difficulty had a lot to do with very poor reports and descriptions exaggerated by excited witnesses not familiar with objects in the night sky. Evaluating each individual sighting can be exhausting. Many are not that difficult but others either lack details or contain errors in the reporting, which results in me trying to find additional information (like weather, winds aloft, etc). The resultant work load eats into a lot of my time.

Satellites continue to big producer of UFO reports. Luckily, there is a great Two-line element database at Jonathan McDowell's space home page. I counted 92 possible/probable satellite sightings in the list. That is about 24% of the total number of sightings. Echo 1 and Echo 2 were the primary sources. However, several were of the Cosmos variety. Additionally, a new contender had been launched in late June. That was Pageos-1. It had a magnitude of about 1 and moved slower than Echo 1 and 2 because it was in a

higher orbit. I recall seeing Pageos-2 in my early years of astronomy. It moved slow enough that its motion was not easily perceptible with the eye until one watched for a few seconds and as it passed near stars. It was visible on the same track the following evening around the same time. I had seen plenty of satellites in the past but this was different. Being not that experienced, I went for help and brought it up with some more experienced observers at the next club meeting. I remember their answer was that I saw a satellite that was very high up and it was probably a spy satellite. It wasn't until many years later that Ted Molczan suggested to me that what I had seen was the Pageos satellite.

There were some very interesting cases on the list. One involved an individual in West Galveston Bay (July 4), who saw a bright flash with a resultant comet shaped cloud that was relatively stationary and slowly faded out after 15 minutes. The witness even gave pretty good star positions for the event. I was disappointed that Blue Book listed this as "insufficient data". Presumably, this was because there was enough data to make a judgment. The data was there but Blue Book chose not to examine it. Hynek's signature was missing on this one and he probably might have come up with a conclusion had he reviewed it. It might have been a firework display but it was late at night and very high in the sky. It was also probably not a venting booster in orbit, which would have moved over time. Eventually, I classified this as a possible fireball with resultant long duration ion trail. The description matches that kind of event.

Another interesting case was from Atlanta on July 25-27. These witnesses, who would be considered "expert observers", mistook celestial objects and satellites for UFOs. One of the major UFOs seen was the planet Venus. They saw it on multiple mornings but continued to believe it was something unusual. These were Air Traffic controllers and communications specialists but they still made the same kinds of mistakes that casual observers make. This case was also listed as insufficient data and Hynek was missing from this one as well. Once again, the data was there. It just took time to examine it and identify the sources.

Next issue, I will perform a check of the last four months of 1966.

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